

DZHAFAROV, Sh.M.

A new species of bloodsucking midges (Diptera, Heleidae)  
of the eastern districts of Georgia. Dokl. AN Azerb. SSR  
19 no.5:53-55 '63. (MIRA 17:2)

1. Institut zoologii AN AzSSR. Predstavleno akademikom AN  
AzSSR A.N. Derzhavinyam.

DZHAFAROV, Sh.M.; MUSAYEV, M.A., red.; SOSNINA, Ye.F., red.

[Biting midges (Diptera, Heleidae) of Transcaucasia; morphology, biology, ecology, geographical distribution, injuriousness, control and fauna of the genera Culicoides, Leptoconops and Lasiohelea] Krovososushchie mokretsy (Diptera, Heleidae) Zakavkaz'ia; morfologiya, biologiya, ekologiya, geograficheskoe rasprostraneniye, vredonosnost', mery bor'by i fauna rodov Culicoides, Leptoconops i Lasiohelea. Baku, Izd-vo AN Azerb.SSR, 1964. 413 p.  
(MIRA 17:5)

MEKHTIYEV, D.M.; DZHAMALOV, I.M.; DZHAFAROV, Sh.T.

Make wider use of lift methods in the exploitation of strippers.  
Azerb. neft. khoz. 40 no. 4:31-33 Ap '61. (MIRA 15:7)  
(Oil wells--Gas lift)

ACCESSION NR: AP4035698

S/0057/64/034/005/0868/0872

AUTHOR: Gurov, S.V.; Dzhafarov, T.A.; Malinin, A.A.; Osadin, B.A.; Taynov, Yu.F.

TITLE: Electrode processes in high current vacuum discharges

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.5, 1964, 868-872

TOPIC TAGS: electric discharge, vacuum discharge, high current discharge, electrode erosion

ABSTRACT: Electrode erosion in high current vacuum discharges was investigated by high speed photography of the discharges and microscopic examination of the electrodes. The discharges took place between the ends of coaxial electrodes separated by teflon insulation and located in a chamber evacuated to approximately  $3 \times 10^{-5}$  mm Hg. The inner electrodes were 10 mm in diameter and were of steel, copper, tungsten or tin. The diameters of the outer electrodes were 20 and 28 mm; these were of lead, cadmium, tin, zinc or copper. The energy for the discharge was provided by a bank of electrolytic capacitors charged to from 200 to 300 V and having a capacity of 0.002 to 0.014 farad. The discharge was initiated by a vacuum spark. High speed photographs with a type SFR camera showed the development of a characteristic

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ACCESSION NR: AP4035698

cone of expelled erosion products. The generatrices of this cone made an angle of about  $25^\circ$  with the axis of the electrodes. The maximum intensity of radiation occurred approximately 15 microsec after the onset of discharge; visible expulsion of material ceased soon after this, but the electrodes continued to glow for several hundred microseconds. Time resolution photographs showed the presence of spatially limited plasma formations moving with velocities up to  $1.5 \times 10^6$  cm/sec. These "microplasmoids" were 2 to 5 mm long (in the direction of motion), but their transverse dimensions were much smaller. Electrode material was deposited on the wall of the vacuum chamber near the electrodes. In addition to this, there was a well-focused beam of ionized metal in the direction of the axis of the electrodes. The diameter of this beam increased only to 3 cm in a distance of one meter. The electrodes were polished to a mirror finish before the discharge. After the discharge the anode (inner electrode) showed dark spots several millimeters in diameter, and the cathode (outer electrode) was pitted with many small "microcraters". These microcraters were very numerous near the inner edge of the cathode, while the outer region was free of them. The microcraters were from 1 to 5 microns in diameter in the copper cathodes, and from 10 to 150 microns in diameter and from 2 to 10 microns deep in the cadmium, tin and zinc cathodes. The craters increased in size with increasing discharge energy. Droplets of metal (1 to 20 microns) could be seen on the

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ACCESSION NR: AP4035698

more easily melted cathodes. Although it was the cathodes that were pitted, the microplasmoids originated at the anodes. It is suggested that their high velocities may be due to electrodynamic accelerating forces of the type discussed by H. Mäcker (Zs. phys., 141, 198, 1955). A simple regenerative mechanism is suggested to account for microcrater formation: a local increase of the metal vapor density reduces the thickness of the cathode drop region. This results in a local increase of the electric field, and hence of the current. The increased current increases the local temperature, and hence the local evolution of metal vapor. "In conclusion the authors express their gratitude to A.G. Iosif'yan, member of the Academy of Sciences of the Armenian SSR, for his interest in the work, and to Yu.P. Rylov and A.A. Stupin for discussing the results." Orig.art.has: 1 formula and 4 figures.

ASSOCIATION: none

SUBMITTED: 08Jun63

ATD PRESS: 3086

ENCL: 00

SUB CODE: ME, GC

NR REF SOV: 006

OTHER: 001

3/3  
Card

BOLTAKS, B.I.; DZHAFAROV, T.D.

Effect of local electric fields on the diffusion of antimony  
in germanium. Fiz. tver. tela 5 no.10:2818-2824 0 '63.  
(MIRA 16:11)  
1. Institut poluprovodnikov AN SSSR, Leningrad, i Institut fiziki  
AN Az. SSR, Baku.

BOLTAKS, B.I.; DZHAFAROV, T.D.

Diffusion of gallium in inhomogeneous silicon. Fiz. tver. tela 5 no.12:  
3611-3613 D '63. (MIRA 17:2)

1. Institut poluprovodnikov AN SSSR, Leningrad.



ACCESSION NR: APL034936

S/0181/64/006/005/1511/1519

AUTHORS: Boltaks, B. I.; Dzhaferov, T. D.; Sokolov, V. I.; Shishiyamu, F. S.

TITLE: Diffusion and electrical transfer of zinc in gallium arsenide

SOURCE: Fizika tverdogo tela, v. 6, no. 5, 1964, 1511-1519

TOPIC TAGS: solid diffusion, semiconductor, semiconductor conductivity, metallographic examination, zinc diffusion, gallium arsenide

ABSTRACT: The test material consisted of single crystal samples of n-type GaAs with resistivity ranging from  $8 \cdot 10^{-3}$  to  $2 \cdot 10^{-2}$  ohm·cm and of p-type GaAs with resistivity of  $5 \cdot 10^{-2}$  ohm·cm. Measurements were made by radioactive and electrical methods. It was found that the Zn distribution in both types of samples, as well as the distribution of current carriers introduced by the diffusion, depends on the boundary concentration. When this value is low, the concentration curve is described by erfc function. At boundary concentrations greater than  $4 \cdot 10^{19}$  cm<sup>-3</sup>, the concentration profile is step-like. It was found that at high Zn

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ACCESSION NR: AP4034936

concentrations the concentration of current carriers is but  $1/5$  to  $1/8$  the Zn concentration. The diffusion coefficient of Zn depends on the boundary concentration. Metallographic study has shown that when the concentration curve for n-type GaAs is step-like, polished sections show two transitions:  $p^+ \rightarrow p$  and  $p \rightarrow n$ . In p-type GaAs, there is always but the one transition:  $p^+ \rightarrow p$ . The authors have found that in the temperature interval 830-1130°C Zn is displaced in GaAs in the form of positive ions, the effective charge decreasing with rise in temperature. This decrease follows from the entrapment of ions by electrons. The diffusion mechanism is thought to involve three diffusion currents, due to negatively charged ions in vacancies, positively charged ions in interstices and neutral Zn ions. Orig. art. has: 7 figures.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 10Dec63

DATE ACQ: 20May64

ENCL: 00

SUB CODE: EC

NO REF SOV: 004

OTHER: 007

Card 2/2

E 10361-65

ENT(m)/ENP(b) IJP(c)/ESD(as)/AEDC(a)/AFWL/ASD(a)-5/AFTC(a)/

REMEM: JD

AP4046650

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aka, B. I.; Grabchak, V. P.

Diffusion of antimony in inhomogeneous germanium

ika tverdogo tela, v. 6, no. 1, 1981

antimony, germanium, single crystal

101-

density

Authors report experiments in a magnetic field, due to a diffusion of antimony in single-crystal p-type germanium produced by diffusion of antimony at 850°C. Two batches of germanium were used. The concentration was a maximum in the first

101-1

101-2

101-3

101-4

101-5

AP4046650

diffusion of antimony from the surface in the temperature range 720--900°C. The effect of the surface gradient was found by the p-n junction method. The results of the radioactive isotope ( $Sb^{124}$ ) diffusion experiments of Al and Sb had the same character. In samples with a surface gradient in the surface region, only one p-n junction was found and only one p-n junction was found in the surface region. The same direction of the effective diffusion coefficient of Sb, and the opposite direction of the gradients increased the effective diffusion coefficient of the intrinsic carrier of Sb. The effective diffusion coefficient at 720°C was 1.5 cm<sup>2</sup>/sec. The value of  $D_{Sb}$  for homogeneous samples was 1.5 cm<sup>2</sup>/sec. The coefficient ranged from 1.5 to 1.5 cm<sup>2</sup>/sec at the highest temperature.

NP 146650

homogeneous perturbation  
cm<sup>-1</sup>) and in light of  
gallium, carrier density of  
between the surface concentration  
theory; for these two types of  
and i formula.

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AN SSSR; Inst. for  
AN Azetb. SSR

typed

NP REP 50

001

BRZHEZITSKIY, M.V.; DZHAFAROV, T.E.

Biological and ecological characteristics of mosses growing on the  
Apsheon Peninsula. Uch.zap.AGU.Biol.ser. no.2:23-28 '59.  
(MIRA 13:6)

(APSHERON PENINSULA--MOSES)

DZHAFAROV, T.E.

Electron microscopic study of secretory alveoles of the salivary glands of the tick *Ornithodoros moubata* (Murray). Tsitologiya 7 no.2:233-236 Mr-Apr '65. (MIRA 18:7)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR, Leningrad.

DZHAFAROV, T. M.

DZHARAKOV, T. M.: "The functional state of the liver in certain diseases of the stomach and intestines." Azerbaydzhan State Medical Inst. Baku, 1956.  
(Dissertation for the Degree of Candidate in Medical Science)

So: Knizhanava Letopis, No 17, 1956



AVANESOV, V.T.; DZHAFAROVA, A.A.

Determination of oil and oil-water recoveries based on oil-field  
production data. Azerb. neft. khoz. 38 no.2:32-34 F '59.

(MIRA 12:5)

(Oil fields--Production methods)

DZHAFAROVA, A.Ya.; SAVOSTITSKIY, A.V.

Factors influencing the size precision and form of parts glued  
together. Leg. prom. 18 no.2:17-19 P '58. (MIRA 11:2)  
(Dressmaking)

DZHAFAROVA, A. Ya., Candidate of Tech Sci (diss) -- "The effect of methods of treatment on the precision of dimensions and the form of the hem of a man's jacket". Moscow, 1959. 13 pp (Min Higher Educ USSR, Moscow Tech Inst of Light Industry). 130 copies (KL, No 21, 1959, 115)

DZHAFAROVA, A.Ya.; SHUTOVA, N.G. (Tashkent)

Conveyor assembly-lines in Uzbekistan clothing factories. Shvein.  
prom. no.6:16-18 N-D '59. (MIRA 13:4)  
(Uzbekistan--Clothing industry--Equipment and supplies)  
(Assembly-line methods)

DZHAFAROVA, A.Ya.

Some problems connected with the work of technical school  
departments of clothing manufacture. Shvein.prom. no.1:34  
Ja-F '60. (MIRA 13:6)

1. Ivanovskiy tekstil'nyy Institut.  
(Clothing industry--Study and teaching)

DZHAFAROVA, A.Ya.

Insulating properties of clothing. Izv.vys.ucheb.zav.;tekhn.tekst.  
prom. no.2:128-133 '60. (MIRA 13:11)

1. Ivanovskiy tekstil'nyy institut.  
(Clothing, Cold weather)

DZHAFAROVA, A.Ya.; SHUTOVA, N.G. (Ivanovo)

About the nonutilized potentialities of the Ivanovo Province  
clothing factories. Shvein. prom. no.3:9-11 Je-Jl [i.e. My-Je] '61.  
(MIRA 16:11)

ACCESSION NR: AP4012601

S/0233/63/000/005/0095/0100

AUTHORS: Akhundov, G.A.; Dzhafarova, E.A.; Iskender-Zade, Z.A.

TITLE: Analysis of the capacitance of silicon diodes

SOURCE: AN AzerbSSR. Izv. Ser. fiz.-matem. i tekhn. nauk, no. 5, 1963, 95-100

TOPIC TAGS: p-n transistors, volume charge, diffusion capacity, frequency dependence of capacitance, silicon, silicon diode, diode, silicon diode capacitance

ABSTRACT: The authors have investigated the dependence of the capacitance of the p-n transistors on the constant reversed bias, on temperature, and on the frequency of the ac-signal. Specimens were prepared from n-type silicon into which aluminum was introduced by thermal diffusion. The measurement of the capacitance was made with the MLE-1 bridge which was fed by the sound generator SG-10. The electron-beam equilibrium indicator EBEI-3 was used. Measurements

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ACCESSION NR: AP4012601

were made at temperatures of melting ice, dry ice, freezing point of ethyl alcohol, and liquid nitrogen. The results of measurements are discussed in terms of changes of the volume charge and concentration of charge carriers (diffusion capacitance). The latter is temperature dependent. The author is grateful to Prof. G.B. Abdullayev for interest in the work. Orig. art. has: 8 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: PH, GE

NO REF SOV: 001

OTHER: 002

Card 2/2

BAKHYSHOV, A.E.; DZHAFAROVA, E.S.

Dependence of the capacity of a Se-TlSe, Se-InSe rectifier  
on the voltage. Uch. zap. AGU. Ser. fiz.-mat. nauk no.4:  
97-101 '63. (MIRA 17:12)



**"APPROVED FOR RELEASE: 03/20/2001**

**CIA-RDP86-00513R000411820010-4**

**APPROVED FOR RELEASE: 03/20/2001**

**CIA-RDP86-00513R000411820010-4"**

S/0109/64/009/007/1281/1286

ACCESSION NR: AP4042524

AUTHOR: Abdullayev, G. B.; Iskender-Zade, Z. A.; Dzhaferova, E. A.; Akhundov, G. A.

TITLE: Effect of electrothermal treatment on the properties of silicon diodes

SOURCE: Radiotekhnika i elektronika, v. 9, no. 7, 1964, 1281-1286

TOPIC TAGS: semiconductor, silicon diode, semiconductor diode, silicon diode electrothermal treatment

ABSTRACT: The variation of a reverse current in Si diodes as a result of the prolonged application of a d-c reverse voltage at an elevated temperature was experimentally studied. An Si diode was held for 6 hrs at a reverse voltage of 150 v and a temperature of 448K; its initial reverse current of 2.8 ma dropped to a stable value of 0.9 ma with no variation in the forward current. The effect of temperature on the reverse current was also studied. It was found that the

ACCESSION NR: AP4041486

S/0249/64/020/003/0017/0021

AUTHOR: Abdullayev, G. B., Dzhaforova, E. A., Iskender-Zade, Z. A.

TITLE: The effect of additional charged centers on the capacitance of the p-n transitions in silicon

SOURCE: AN AzerbSSR. Doklady\*, v. 20, no. 3, 1964, 17-21

TOPIC TAGS: semiconductor, silicon, p-n transition, p-n transition capacitance, silicon capacitance, silicon impurity, charged center, dielectric permeability, capacitance voltage dependence, barrier capacitance

ABSTRACT: The authors first point out that the capacitance of the p-n transition at backward voltages greatly exceeding the contact potential difference is determined by the volume charge of the excess ion donors in the n-zone and ion acceptors in the p-zone. Hence, on theoretical grounds, the relationship between the barrier capacitance and voltage is determined by the distribution of electrically active impurities, capacitance being proportional to  $V^{-1/3}$  with a linear distribution of impurities ( $N_D - N_A = ax$ ) and to  $V^{-1/2}$  with a homogeneous distribution of impurities ( $N_D - N_A = \text{constant}$ ), but being highly dependent on voltage if the distribution of impurities is exponential. Experimental data relating capacitance to voltage at various temperatures (17-85C) showed that, following a slow initial decrease with

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ACCESSION NR: AP4041486

increasing voltage, capacitance is proportional to  $V^{-1.4}$  in the voltage range 6-90 volts, becoming proportional to  $V^{-1/3}$  in the range 90-400 volts. This anomalous dependence of capacitance on voltage in the range 6-90 volts was especially pronounced at higher temperatures and could be correlated with the anomalous behavior of the volume charge width in the same voltage interval. However, as shown in the Enclosure, the anomaly disappeared after electrical treatment of the silicon (200 v at 175C for 6 hours). The authors conclude that the anomalously high capacitance of silicon in the low voltage range is due to an irregular distribution of positively charged impurities, which are eliminated by electrical treatment. Orig. art. has: 3 figures and 4 formulas.

ASSOCIATION: none

SUBMITTED: 24Dec63

ENCL: 02

SUB CODE: SS

NO REF SOV: 008

OTHER: 002

2/4

Card

ACCESSION NR: AP4041486

ENCLOSURE: 01

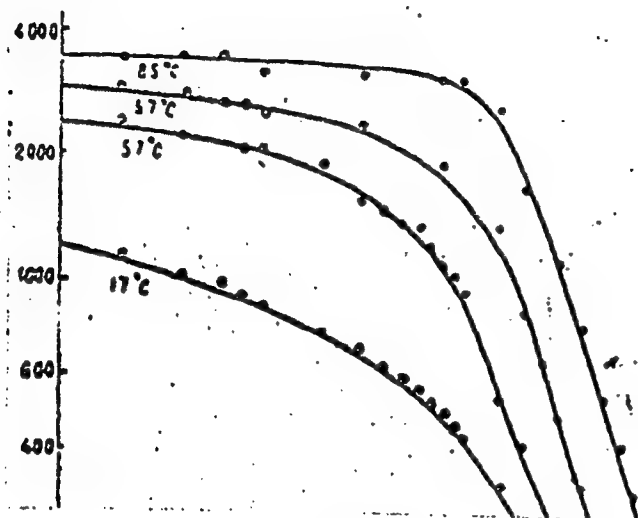


Figure 1

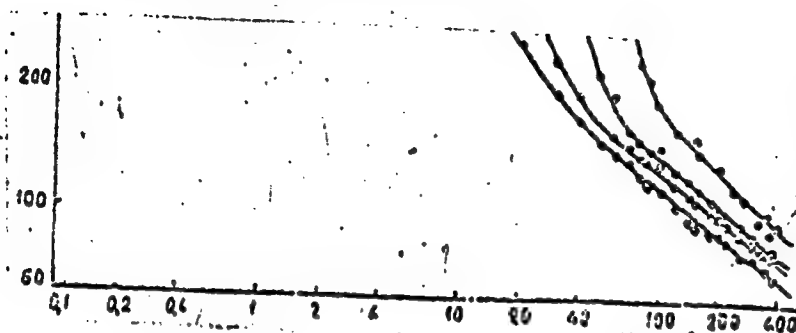
Card 3/4



ACCESSION NR: AP4041486

ENCLOSURE: 02

Continuation of Figure 1.



Relationship between barrier capacitance in pF and backward voltage, before (curve 1) and after (curve 2) electrical treatment at 67C.

Card 4/4

ABDULLAYEV, G.B.; ISKENDER-ZADE, Z.A.; DZHAFAROVA, E.A.

Capacitive and inductive properties of silicon diffusion diodes. Izv.  
AN Azerb.SSR, Ser. fiz., -tekh. i mat. nauk no. 3:81-88 '64.

(MIRA 17:12)



12010117

Subject: fiziki AN AzerbSSR (Institute of Phys. AzerbSSR)

12010117

ENCL: 00

SUB: 00

OTHER: 003

EWA(h)/EWT(1)/EWT(m)/EWP(h)/T/EWP(t)

Iskender-zade, Z. A.; Abdullayev

... ..

... ..

... .., pn junction, transient characteristic, resistance, recovery time

Abstract: The authors investigated the effect of ... ..  
 ... .. The pulses were ... ..  
 ... .. square-wave generator, ... ..  
 ... .. The part of ... ..  
 ... .. and backward current is ... ..  
 ... .. inverse resistance of the diode. The experimental ... ..  
 ... .. satisfactory agreement with theoretical papers on

1. The first part of the report is a summary of the information received from the source. The second part is a description of the source's activities and the results of the investigation. The third part is a conclusion and recommendations.

2. The first part of the report is a summary of the information received from the source. The second part is a description of the source's activities and the results of the investigation. The third part is a conclusion and recommendations.

L 07091-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6019007

SOURCE CODE: UR/0109/66/011/006/1151/1154

AUTHOR: Abdullayev, G. B.; Chelnokov, V. Ye.; Iskender-zade, Z. A.;  
Dzhafarova, E. A.

54  
47  
B

ORG: none

TITLE: Effect of junction-metal-type impurities on lifetime of minority carriers in n-Si

SOURCE: Radiotekhnika i elektronika, v. 11, no. 6, 1966, 1151-1154

TOPIC TAGS: carrier lifetime, semiconductor research, semiconductor carrier, MINORITY CARRIER, PN JUNCTION, NICKEL, METAL DIFFUSION

ABSTRACT: The results are reported of an experimental study of the effect of Ni on the lifetime of minority carriers contained in the n-base of Si p-n junctions produced by the diffusion alloy process. The p-n junctions were prepared by introducing Al into Si having  $\rho = 20$  ohms-cm. Plots of hole lifetime vs.

Card 1/2

UDC: 539.299.52.011.25:621.315.592.2

L 07091-67

ACC NR: AP6019007

7  
temperature and vs. injection level are shown, as are plots of hole lifetime vs. temperature measured (at a low injection level) with specimens that contained some Ta, W, and Ti. It is found that the introduction of Ni blunts the action of more efficient recombination centers having  $\Delta E_t = 0.55$  ev. Ni atoms diffuse in Si and shield other impurity or dislocation centers. "The authors wish to thank V. M. Tuchkevich for his attention to the work and his valuable comments." Orig. art. has: 3 figures.

SUB CODE: 20, 09 / SUBM DATE: 11Aug65 / ORIG REF: 004 / OTH REF: 008

Card 2/2 *LC*



ACC NR: AP6023882

SOURCE CODE: UR/0109/66/011/007/1336/1337

AUTHOR: Abdullayev, G. B.; Dzhafarova, E. A.; Badalov, A. Z.;  
Iskender-zade, Z. A.; Chelnokov, V. Ye.

ORG: none

TITLE: Reactive properties of reverse-biased silicon p-n junctions

SOURCE: Radiotekhnika i elektronika, v. 11, no. 7, 1966, 1336-1337

TOPIC TAGS: semiconductor device, pn junction

ABSTRACT: The reactive properties of low-volt (6 v breakdown) p-n junctions made from n-Si with a resistivity of 0.03-0.05 ohm·cm were investigated. Measurements were made at temperatures of -196-130C and at frequencies of 0.4-600 kc. Plots of junction capacitance vs. reverse bias at room temperature, for 5-100-200-400-600-kc, are shown. In the far-from-breakdown region, the

Card 1/2

UDC: 539.293.011.41

ACC NR: AP6023882

capacitance is independent of the small-signal frequency and decreases when the bias voltage increases, approximately as  $C = U_{rc}^{-1/2}$ . In the breakdown region, at lower frequencies, the capacitance rapidly increases with the bias voltage; at higher frequencies, the capacitance drops to zero and turns into inductance. A physical explanation is offered. Orig. art. has: 1 figure.

SUB CODE: 09 / SUBM DATE: 01Apr65 / ORIG REF: 003

DZHAFAROVA, F.S.

Effect of a growth promoting substance of petroleum origin on  
growth, development, and water economy of the cotton plant.  
Izv. AN Azerb. SSR. Ser. biol. i med. nauk no.4:13-18 '61.  
(MIRA 14:7)

(COTTON) (GROWTH PROMOTING SUBSTANCES)

GUSEYNOV, D.Z., DZHAFAROVA, F.S.

Effect of growth substances of petroleum origin on carbohydrate  
and protein metabolism in the cotton plant. Dokl.AN Azerb.SSR 16  
no.5:503-506 '60. (MIRA 13:8)

1. Institut botaniki AN AzerSSR.  
(Growth promoting substances) (Cotton)  
(Plants--Metabolism)

DZHAFAROVA, L. T.; DIKOVA, V. Yu. (Baku)

Sickle cell anemia in childhood. *Pediatrics* 41 no.3:56-57 '62.  
(MIRA 15:2)

1. Iz kafedry pediatrii (zav. - dotsent A. R. Useynov) Azerbaydzhan-  
skogo instituta usovershenstvovaniya vrachey (dir. - prof. A. M.  
Aliyev).

(ANEMIA)

ISMAILOV, R.G.; SULTANOV, Z.A.; ALIYEV, D.A.; Prinimali uchastiye;  
GOL'SHTEYN, G.; IVANOVA, T.; REVYAGINA, K.; GUREVICHEV, A.;  
ALIYEVA, S.; DZHAFAROVA, M.

Selecting the crude oil for the production of petroleum electrode  
coke. Khim.i tekhn.topl.i masel 7 no.2:25-29 F '62.

(MIRA 15:1)

1. Sovnarkhoz Azerbaydzhanskoy SSR i Bakinskiy zavod "Neftegaz".  
(Petroleum coke)

DZHAFAROVA, M. M.

Repairing the insulation of old cables by impregnation, Energ. biul, No 12,  
1951.

1. DZHAFAROVA, M. M.
2. USSR (600)
4. Electric Lines - Testing
7. Possible errors in testing cable lines with the voltage of a rectified current. Energ. Biul. no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.



DZHAFAROVA, M. M. and DZHUVARLY, Ch. M.

"Test of insulation of a Long Transmission Line at 200 kV".  
Tr. Energ. in-ta AN Az SSR, 12, pp 46-58, 1954

Tentative tests of the line LEP-220 kV were carried out in a chamber of 2.7 cu m in atmospheric conditions of temperature and pressure and with deliberate soiling of insulators. The ratio of conductivity to discharge potential was illustrated graphically. The lowest discharge potential occurs at 6% of kitchen salt in dust. The obtained data allowed the determination of the number of insulators required by the line in various circumstances of climate. (RZhFiz, No 10, 1955)

SO: Sum No 812, 6 Feb 1956

8(3)

SOV/112-59-2-2820

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 2, p 79 (USSR)

AUTHOR: Dzhubarly, Ch. M., and Dzhafarova, M. M.

TITLE: On the Problem of Voltage Distribution Over an Insulator String  
(K voprosu o raspredelenii napryazheniya po girlyande izolyatorov)

PERIODICAL: Izv. AN AzerbSSR. Ser. fiz.-tekhn. i khim. n., 1958, Nr 2,  
pp 80-95 (summary in Azerbaydzhyani)

ABSTRACT: A comparison of the methods for measuring voltage distribution over string insulators (a probe and small-diameter spheres) showed the advantages of the sphere method; it is impossible to allow for probe-to-ground capacitance. The voltage distribution as measured by the spheres is stepped in case of an insulator coated with conducting deposits or placed in a fog; this voltage distribution does not tally with that calculated for a chain of capacitors shunted by resistors. For a 14-unit string of P-4.5, the entire voltage is distributed between the 2nd and the 12th units while all remaining units have zero voltage.

Card 1/2

SOV/112-59-2-2820

On the Problem of Voltage Distribution Over an Insulator String

Corona causes a sharp nonuniformity of voltage distribution because of the increased capacitance of unit-insulator electrodes to ground.

V.A.Kh.

Card 2/2

DZHAFAROVA, M.M.

Effect of corona elements on dust accumulation in insulator  
chains. Izv. AN Azerb. SSR. Ser. fiz.-mat.i tekhnauk no.1:117-  
123 '61. (MIRA 14:4)

(Corona(Electricity))  
(Electric insulators and insulation)

DZHUVARLY, Ch. M.; DZHAFAROVA, M. M.

. Discharge voltages of insulators. Izv. AN Azerb. SSR. Ser.  
fiz.-mat.i tekhn. nauk no.1:125-128 '61. (MIRA 14:4)  
(Electric insulators and insulation)

DZHAFAROVA, M.M.; DZHUVARLY, Ch.M.

Corona protection of insulators. Izv. AN Azerb. SSR. Ser.  
fiz.-mat.i tekhn. nauk no.1:129-135 '61. (MIRA 14:4)  
(Corona (Electricity))  
(Electric insulators and insulation)

DZHUVARLY, Ch.M.; DZHAFAROVA, M.M.

Movement of dust particles in the electric field of an insulator.

Izv. AN Azerb.SSR. Ser. fiz.-mat. i tekhn. nauk 2:65-68 '61.

(MIRA 14:7)

(Dust) (Electric fields) (Electric insulators and insulation)

L 31549-66 EWT(m)/EWP(j) RM

ACC NR: AP6005108

(A)

SOURCE CODE: UR/0316/65/000/005/0027/0032

AUTHOR: Guseynov, M. M.; Kichiyeva, D. D.; Treyvus, E. M.; Dzhafarova, M. T.

29  
8

ORG: INKhP AN Azerb. SSR

TITLE: Synthesis of esters from hexachlorocyclopentadiene 1

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 5, 1965, 27-32

TOPIC TAGS: aliphatic dicarboxylic acid, aliphatic alcohol, ester, chemical synthesis,  
condensation reaction, chlorinated organic compound

ABSTRACT: The paper gives the results of esterification of 1,4,5,6,7,7-hexachlorobicyclo-(2.2.1)-5-heptene-2,3-dicarboxylic anhydride with C<sub>4</sub>-C<sub>10</sub> aliphatic alcohols of normal and iso structure. Condensation of hexachlorocyclopentadiene with maleic anhydride showed that the optimum conditions for the synthesis of 1,4,5,6,7,7-hexachlorobicyclo-(2.2.1)-5-heptene-2,3-dicarboxylic anhydride are: a temperature of 170C, a 1:1 molar ratio of the components, a duration of the experiment of 3 hr, and one atmosphere of nitrogen. The yield of the addition product thus reaches 99.8%. The effect of various reaction parameters (temperature, molar ratio of the initial components, duration of experiment, amount of catalyst taken) in the esterification reaction of the dicarboxylic anhydride on the yield of esters was determined, and the optimum conditions for the preparation of diesters were established in each case. It was shown that as the chain length of the alcohol increases, the yield of diesters

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L 31549-66

ACC NR: AP6005108

diminishes. This is also observed in passing from alcohols of normal structure to those of iso structure. Orig. art. has: 1 figure and 5 tables.

SUB CODE: 07 / SUBM DATE: 05Apr64 / ORIG REF: 004 / OTH REF: 003

2/2

DZHAFAROVA, N.M.

Use of electronic computers in solving logical problems involving the  
elimination of negation and reducing them to the disjunctive normal  
form. Izv. AN Azerb.SSR.Ser.fiz.-tekh.i mat. nauk no.3:99-102 '64.  
(MIRA 17:12)

DZHAFAROVA, S.A.

Excretion of uropepsin in children with pneumonia. Azerb. med.  
zhur. no.12:55-60 '62. (MIRA 17:1)

1. Iz kafedry gosptal'noy pediatrii (zav. -- zasluzhennyy deyatel'  
nauki, dotsent A.N. Amirdzhanov) Azerbaydzhanskogo gosudarstvennogo  
meditsinskogo instituta imeni Narimanova (rektor -- zasluzhennyy  
deyatel' nauki, prof. B.A. Eyvazov).

KATS, P.D.; DZHAFAROVA, S.A.

Dynamics of some peripheral blood indices and daily excretion of  
17-ketosteroids with the urine of healthy children under the effect  
of a single administration of ACTH. Izv. AN Azerb. SSR, Ser. biol.  
i med. nauk no.1:109-115 '63. (MIRA 17:5)

DZHAFAROVA, V.I.

Efficiency of concentrated and compound fertilizers applied to  
tomatoes in the Apsheron Peninsula. Izv. AN Azerb. S.S.R. Ser.  
biol. i med. nauk no.1:75-80 '63. (MFI: 17:5)

DZHAFAROVA, Z. D.

"Roentgenological Study of Aseptic Necrosis of the Head of the Femur in Adults." Cand Med Sci, Azerbaydzhani State Medical Inst, Baku, 1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

SPANOV, I.I.; GUSEAROVA, G.D.; AGLANOV, I.I.

Multiple subfocal pericystosis in radiologic diagnosis of certain  
localizations. Ver. 1982. 11 no. 2:200-203. (MIRA 19:2)

1. Iz kafedry rentgenologii (dr. I. I. Spanov) Azerbay-  
dzanskogo Instituta usoveshchivaniya vrachey Ismi Aliyeva  
(rektor - kand. med. nauk R. M. Aliyev) i Azerbaydzanskogo nauchno-  
issledovatel'skogo instituta onkologii i radiologii (dir. -  
prof. N. M. Alimov).

DZHAFAROVA, Zh.D.

Glupoidae and Gaididae from Maikop sediments in Shemakha District.  
Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no.4:11-19 '64.  
(MIRA 17:12)



GAUZER, Ye.G.; ALIYEV, H.G.; ISMAILZADE, A.I.; DZHAFAROVA, Z.F.

Biological activity of iodide naphthene. Izv. AN Azerb. SSR.  
Ser. biol. nauk no.2:97-101 '64.

(MIRA 17:10)

DZHAPOVA, K.F.

Effect of iodine on mineral nutrition of plants. In: Azotob.  
SSR. Ser. biol. nauk. 1970, 18.000. (18.000)

DZHAFAROVA, Z.F.

Characteristics of the course of nitrogen metabolism in birds  
during the fall period as affected by iodine. Izv. AN Azerb.  
Izv. AN Azerb. SSR. Ser. biol. nauk no.1:100-103 '65.  
(MIRA 18:5)

DZHAFAROVA, Zh.

Maikop fishes of Akburun. Dokl. AN Azerb. SSR 18 no.11:47-51 '62.  
(MIRA 17:2)

1. Yestestvenno-istoricheskiy muzey imeni Zardabi.  
Predstavleno akademikom AN Azerbaydzhanskoy SSR A.A. Alizade.

DZHAFAROVA, Zh.

Fossil fishes of Shemakha District. Izv. AN Azerb.SSR. Ser.geol.-  
geog.nauk i nefti no.3:15-20 '63. (MIRA 16:11)

DZHAFAROVA, Zh.D.

Elephas (Archidiscodon) meridionalis in Transcaucasia. Dokl.  
AN Azerb.SSR 17 no.11:1077-1080 '61. (MIRA 15:2)

1. Institut geologii AN AzSSR i Muzei imeni Zardabi.  
Predstavleno akademikom AN AzSSR A.A.Alizade.  
(Mingechaur Reservoir--Elephants, Fossil)

L 12849-63

EWI(j)/EPF(c)/EWI(m)/BDS ASD Pc-L/Pr-L RA/NW/JW

ACCESSION NR: AP3601158

S/0190/63/005/006/0854/0860

68  
67

AUTHOR: Matsoyan, S. G.; Pogosyan, G. M.; Dzhagalyan, A. O.; Mushegyan, A. V.

TITLE: Studies in cyclic polymerization and copolymerization. 13. Polymerization of N-substituted diallylamines

SOURCE: Vy\*sokomolekulyarny\*ye soyedineniya, v. 5, no. 6, 1963, 854-860

TOPIC TAGS: cyclic polymerization, cyclic copolymerization, N-substituted diallylamines, radical polymerization, piperidine rings

ABSTRACT: Having shown in previous publications the effect of polar groups on the polymerization of substituted 1,6-heptadiens, the authors devoted the present study to the ability of N-substituted diallylamines to undergo polymerization in relation to the nature of the substituents. It was expected that the introduction of polar groups at the nitrogen atom would confer electron acceptor properties to the latter and induce the N-substituted diallylamines to radical polymerization. Thus, the synthesis of a number of polymers was achieved, such as N,N'-diallylacetamide, N,N'-diallylchloroacetamide, N,N'-diallylpropionamide, N,N'-diallylbenzamide, N,N'-diallylbenzenesulfamide, methylallylcarbamate, and diallylcyanamide. All of these polymers were fusible powdery substances, soluble in organic solvents, with a

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L 12849-63

ACCESSION NR: AP3001156

molecular weight from 7 200 to 24 000. Analysis by infrared spectroscopy confirmed the presence of cyclic structures in the polymer chains, which proved to be piperidine rings. Orig. art. has: 3 formulas, 3 charts, and 1 table.

ASSOCIATION: Institut organicheskoy khimii AN Armyanskoy SSR (Institute of Organic Chemistry, Academy of Sciences ArmSSR)

SUBMITTED: 27Nov61

DATE ACQ: 01Jul63

ENCL: 03

SUB CODE: 00

NO REF SOV: 005

OTHER: 006

Card 2/32



DZHAGAMADZE, Sh.V. (g.Gali)

Study of general disease incidence in population of a rural area.  
Sov. zdrav. 20 no.7:12-17 '61. (MIRA 15:1)

1. Glavnyy vrach Gal'skogo rayona Abkhazskoy ASSR.  
(GALI DISTRICT (ABKHAZIA)--DISEASES--REPORTING)

DEYCH, M.Ye., doktor tekhn.nauk; GUBAREV, A.V., kand.tekhn.nauk; LAZAREV,  
L.Ya., inzh.; DZHAGANMAKHAN, A., inzh.

Investigating the new turbine blade cascade nozzle developed  
by the Moscow Power Engineering Institute for supersonic speeds.  
Toploenergetika 9 no.10:47-52 0 '62. (MIRA 15:9)

1. Moskovskiy energeticheskiy institut.  
(Turbines--Blades) (Nozzles)

SHAPIRO, M.Ya.; DZHAGANOV, Yu.K.

Application of formalin in chronic suppurative otitis media. Vest.  
otorinolar., Moskva 15 no.2:52-54 Mar-Apr 1953. (CML 24:3)

1. Of the Clinic for Diseases of the Ear, Throat, and Nose imeni N. P.  
Simanovskiy (Director -- Prof. M. I. Vol'fkovich) of Saratov Medical  
Institute.

DZHAGANOV, Yu. K.

SHAPIRO, M. Ya; DZHAGANOV, Yu. K.

Formalin therapy following radical surgery of the middle  
ear. Vest. otinolar. Moskva 15 no.6:80 Nov.-Dec.1953.  
(CML 25:5)

1. Of the Clinic for Diseases of the Ear, Throat, and  
Nose (Director -- Prof. M.I. Vol'fkovich), Saratov Medical  
Institute.

DZHAGAROVA, Evgeniia, inzh.

Along the road of technical progress. Tekh delo no.440:2 25 Ag '62.

DZHAGARYAN, A.D., kandidat meditsinskikh nauk; GEVORKYAN, G.G.

Infantile type of coarctation of the aorta. Akush. i gin.  
no.4:39-43 J1-Ag '55. (MLRA 8:11)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo (dir.--prof.  
A.A. Vishnevskiy) Akademii meditsinskikh nauk SSSR i patolo-  
goanatomicheskogo otdeleniya Moskovskogo oblastnogo nauchno-  
issledovatel'skogo instituta akusherstva i ginekologii (zam.  
direktora po nauchnoy chasti--prof. V.P.Mikhaylov)

(COARCTATION OF AORTA, in infant and child.  
clin.aspects)

(INFANT, NEWBORN, dis.  
coarctation of aorta, clin.aspects)

DZHAGARYAN, A.D., kandidat meditsinskikh nauk; KRYMSKIY, L.D.

Unusual case of congenital heart defect. Vop.okh.mat. i det. 1 no.5:  
89-91 S-O 156. (MIRA 9:11)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo Akademii meditsinskikh  
nauk SSSR (dir. - chlen-korrespondent Akademii meditsinskikh nauk SSSR  
prof. A.A.Vishnevskiy) i proektury 2-y Sovetskoy bol'nitsy. Yegor'yevska  
(prozektor V.Ya.Lipets)  
(HEART--ABNORMALITIES AND DEFORMITIES)

USSR/Human and Animal Physiology. Blood Circulation. The Heart.

T-5

Abs Jour: Ref Zhur-Biol.; No 12, 1958, 55599.

Author : Khaidarov, A. Kh., Dzhagaryan, A. D., Mazayov,  
P. N., Savchenkov, I. I.

Inst :  
Title : The Roentgenologic and Photographic Diagnosis of an  
Experimentally Induced Aorta Coarctation in Dogs.

Orig Pub: Eksperim. khirurgiya, 1956, No 4, 27-32.

Abstract: In 12 dogs, the aorta was stitched lengthwise with a single-stitch apparatus, by using tantalum clamps on the various levels of the thoracic section. In 15 puppies of various ages, an aortic stenosis was performed at points higher and lower than the arterial flow, thus creating an infantile type coarctation. In examining the operated animals, a phono-

Card : 1/2



USSR / Human and Animal Morphology, Normal and Patho-  
logic -- Cardiovascular System

S-4

Abs Jour: Ref Zhur-Biol., No 13, 1956, 59859

Author : Dzhagaryan, A. D. and Azayev, P. N.

Inst : Not given

Title : Experimental Model of Coarctation of the Aorta  
with Botallo's Duct Open

Orig Pub: Eksperim. khirurgiya, 1956, No 6, 13-16

Abstract: The thoracic cavity was opened in 12 dogs and the aorta transected at the aortic isthmus. The ends of the aorta were then connected with a tube, which had a branch tube connecting with the pulmonary artery. For coarctation of the aorta above the orifice of Botallo's duct, the constricted portion

Card 1/2

USSR / Human and Animal Morphology, Normal and Pathologic S-4  
--Cardiovascular System

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59859

of the tube was located proximal to its branching point; for coarctation above the orifice of the duct, the constructed portion of the tube was distal to its branching point. -- Ye. V. Ryzhkov

Card 2/2

VISHNEVSKIY, A.A., professor; GALANKIN, N.K., kandidat meditsinskikh nauk;  
DZHAGARYAN, A.D., kandidat meditsinskikh nauk; SAVCHENKOV, I.I.,  
kandidat meditsinskikh nauk

Surgical treatment of double aortic arch. Khirurgiya 32 no.4:56-62  
Ap '56. (MLBA 9:8)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo AMN SSSR (dir.  
chlen-korrespondent AMN SSSR prof. A.A.Vishnevskiy) i Instituta  
terapii AMN SSSR (dir. deyatel'nyy chlen AMN SSSR prof. A.L.  
Myasnikov)

(CARDIOVASCULAR DEFECTS, CONGENITAL,  
double aortic arch, surg. (Rus))

DZHAZARYAN, A.D.

KRYMSKIY, L.D., kandidat meditsinskikh nauk; DZHAZARYAN, A.D., kandidat  
meditsinskikh nauk (Moskva)

A rare case of congenital heart defect; cardiac vascularization by  
three coronary arteries with dextroposition of the aortic bulb  
(tetralogy of Fallot) Klin.med. 34 no.10:72-73 O '56. (MIRA 10:1)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo AMN SSSR (dir. -  
chlen-korrespondent AMN SSSR prof. A.A.Vishnevskiy)  
(CARDIOVASCULAR DEFECTS, CONGENITAL  
tetralogy of Fallot with three coronary arteries)

DZHAGARYAN, A.D.; KRYMSKIY, L.D. (Moskva)

Technic of cardiac incisions in congenital defects [with summary  
in English]. Arkh.pat. 19 no.5:67-69 '57. (MLRA 10:8)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo (dir. - deystvitel'-  
nyy chlen AMN SSSR prof. A.A.Vishnevskiy) AMN SSSR  
(CARDIOVASCULAR DEFECTS, CONGENITAL,  
technic of cardiac incisions in autopsy)

DZHAGARYAN, A.D. kandidat meditsinskikh nauk; KRYMSKIY, K.D., kandidat meditsinskikh nauk

A rare case of congenital heart failure; upper pulmonary vein of the left lung as a tributary of the left innominate vein combined with transposition of large vessels and coarctation of the aorta. Vest. khir. 78 no.1:94-95 Ja '57. (MLRA 10:3)

1. Iz Instituta khirurgii im. A.V.Vishnevskogo AMN SSSR (dir. - prof. A.A.Vishnevskiy) i proektury 2-y Sovetskoy bol'nitsy gor. Yegor'yevska (prozektor - V.Ya.Lipets)

(CARDIOVASCULAR DEFECTS, CONGENITAL, case reports  
atresia of left auricle with rare multiple abnorm. of  
large vessels)

LEBAGARYAN, Andranik Bzhumshudovich -- awarded sci degree of Doc Med  
Sci for 26 Jun 57 defense of dissertation: "Coarctation of the aorta  
with open Botal's duct" (experimental and anatomical research) at the  
Council, Yerevan State Med Inst; 18 Jan 58, Prot No 2.  
(SMVO, 6-58,12)

DZHAGARYAN, A. D.

AUTHOR: None Given SOV-25-58-7-52/56  
TITLE: For Medical Men (Dlya rabotnikov meditsiny)  
PERIODICAL: Nauka i zhizn', 1958, Nr 7, p 76 (USSR)  
ABSTRACT: The article announces the recent publication of an "Atlas of Congenital Heart and Main Blood Vessel Diseases", composed by the Candidate of Medical Sciences, A.D. Dzhagaryan, and edited by the Member of the USSR Academy of Medical Sciences, Professor A.A. Vishnevskiy.  
1. Heart--Pathology 2. Blood vessels--Pathology

Card 1/1



DZHAGARYAN, A.D.

Rare forms of a common arterial trunk. Izv.AN Arm.SSR.Biol. i  
sel'khoz.nauki. 11 no.12:21-25 D '58. (MIRA 12:2)

1. Ministerstvo zdravookhraneniya ArmSSR i patoanatomicheskoye  
otdeleniye Moskovskogo instituta akusherstva i ginekologii.  
(CARDIOVASCULAR SYSTEM--ABNORMALITIES AND DEFORMITIES)

DZHAGARYAN, A.D. (Moskva, Krasnoprudnaya ul., d.30/34, kv.111);  
KRYMSKIY, L.D.

Rare forms of the truncus arteriosus. Grud. khir. 2 no.1:45-48  
Ja-F '60. (MIRA 15:3)

1. Iz Instituta khirurgii imeni A.V. Vishnevskogo (dir. -  
deystvitel'nyy chlen AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR.  
(ARTERIES)

DZHAGARYAN, A.Dzh., prof.; KYANDARYAN, K.A., dotsent; OGANESYAN, S.Z., kand.  
med.nauk

Surgical treatment of chronic coronary insufficiency by bilateral  
ligature of the internal mammary arteries. Trudy Erev.med.inst.  
no.11:257-260 '60. (MIRA 15:11)

1. Iz Instituta rentgeologii i onkologii (direktor - akademik  
AN Armyanskoy SSR, chlen-korrespondent AMN SSSR V.A.Fanardzhyan)  
i iz kafedry operativnoy khirurgii i topanatomii Yerevanskogo  
meditsinskogo instituta (zav. kafedroy prof. A.D.Dzhagaryan).  
(CORONARY HEART DISEASE)  
(SUBCLAVIAN ARTERY—LIGATURE)

VISHNEVSKIY, Aleksandr Aleksandrovich, laureat Leninskoy premii;  
MAZAYEV, Pavel Nikolayevich, prof.; DZHAGARYAN, Andranik  
Dzhurushudovich, prof.; KYANDARYAN, K.A., otv. red.;  
KOLESNIKOVA, N.I., red.izd-va; CHANCHAPANYAN, E.O., tekhn.  
red.

[Atlas of angiocardiology; congenital heart defects]  
Atlas angiokardiografii; vrozhdennyye poroki serdtsa.  
Erevan, Armianskoe gos.izd-vo, 1963. 354 p. (MIRA 16:12)

1. Deystvitel'nyy chlen AMN SSSR (for Vishnevskiy).  
(HEART--DISEASES) (ANGIOKARDIOGRAPHY)

DZHAGARYANTS, K.S. [Dzhaharyants, K.S.]

Geological characteristics of the relief of the Sushchano-  
Perzhanskaya tectonic zone and the possibility of their uti-  
lization in the study of basement structure. Geol. zhur. 23.  
no.4:82-87 \*63 (MIRA 17:7)

1. Institut geologicheskikh nauk AN UkrSSR.

DZHAGARYANTS, K.S.

Electromotive haulage in mining. Razved. i okh. nedr 29  
no.6:54-56 Je '63. (MIRA 18:11)

1. Institut geologicheskikh nauk AN UkrSSR.

MGELADZE, N.V., kand.med.nauk; DZHAGASHVILI, O.A.

Stomach function in a patient with idiopathic dilatation of the  
esophagus. Sbor. trud. Med. nauch. ob-vo Abkh. 2:272-274 '59.  
(MIRA 14:10)

1. Iz Abkhazskogo filiala Instituta kurortologii Ministerstva  
zdravookhraneniya Gruzinskoy SSR (direktor - zasluzhennyy deyatel'  
nauk prof. A.L.Grigoliya).  
(STOMACH) (ESOPHAGUS---DISEASES)

DZHAGASHVILI, O.A.

Dynamics of the basal metabolism in hypertension patients during their treatment at the Sukhum health resort. Sbor. trud. Gos. nauch.-issl. inst. kur. i fizioter. 26:93-98 '63.  
(MIRA 17:5)  
1. Iz Abkhazskogo filiala Nauchno-issledovatel'skogo instituta kurortologii i fizioterapii Gruzinskoy SSR.



S/051/62/013/006/003/027  
E039/E120

AUTHORS: Venkatesvarlu, K., and Dzhagatkhezan, S.

TITLE: The effect of solvents on the intensity of resonating Raman lines

PERIODICAL: Optika i spektroskopiya, v.13, no.6, 1962, 775-777

TEXT: The Raman spectra of carbon tetrachloride, benzene and methyl alcohol in different solvents at various concentrations are investigated. The solvents selected do not possess characteristic lines in the spectral region examined, neither do they react chemically with the dissolved substances. It is shown that the ratios of the line intensities  $I_{790}/I_{762}$  for  $CCl_4$  and  $I_{1585}/I_{1606}$  for  $C_6H_6$  decrease with increase in concentration of the dissolved substance. In the case of  $CH_3OH$  the ratios of the lines  $I_{2937}/I_{2942}$  follow the same general trend overall but some deviation is observed for all the solvents used except chloroform.

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The effect of solvents on the intensity.. S/051/02/013/006/003/027  
EO39/E120

This change in ratio is due to the effect of the solvent which decreases the interaction between the two resonance levels and weakens the Fermi resonance. The observed line intensities and ratios are fully tabulated.

There are 3 tables.

ASSOCIATION: Annamalaingarskiy universitet, Indiya  
(Annamalāingar University, India)

SUBMITTED: October 30, 1961

Card 2/2

S/051/62/013/006/004/027  
E039/E120

AUTHORS: Venkatesvarlu, K., and Dzhagatkhezan, S.

TITLE: The effect of disubstitution on the Raman lines of  
mono-substituted compounds

PERIODICAL: Optika i spektroskopiya, v.13, no.6, 1962, 778-782

TEXT: The effect of disubstitution of the electropositive groups  $\text{CH}_3$ ,  $\text{OH}$  and  $\text{NH}_2$  etc on the monosubstituted compounds of benzene  $\text{C}_6\text{H}_5\text{Cl}$ ,  $\text{C}_6\text{H}_5\text{CH}_3$  and  $\text{C}_6\text{H}_5\text{NH}_2$  with reference to the changes in frequencies and intensities of Raman lines is studied. Particularly pure samples prepared by distillation are used and the spectra recorded under identical conditions. The  $459\text{ cm}^{-1}$  line of  $\text{CCl}_4$  is taken as an intensity standard. It is shown that disubstitution causes a decrease in intensity of the corresponding lines of the monosubstituted compound. For orthosubstituted compounds the intensity of the band corresponding to the  $\text{C} - \text{Cl}$  oscillation, situated in the region of  $700\text{ cm}^{-1}$ , increases when an atom of chlorine or the  $\text{CH}_3$  group is introduced into the molecule and decreases if an  $\text{OH}$  or  $\text{NH}_2$  group is introduced. In the case of

Card 1/2

The effect of disubstitution on the ... S/051/62/013/006/004/027  
EO39/E120

the C - C<sub>ring</sub> oscillations at a frequency of 1000 cm<sup>-1</sup>, there is a decrease in intensity for all compounds. With the C = C group oscillation there is a tendency to decrease in intensity. The intensity of the C - H<sub>arom.</sub> oscillation which appears in the region 3050 cm<sup>-1</sup> generally shows a decrease for all substitutions. The results, which are fully tabulated, are explained on the basis of a change in the electron density in the molecule. There are 9 tables.

ASSOCIATION: Annamalaingarskiy universitet, Indiya  
(Annamalaingar University, India)

SUBMITTED: October 30, 1961

Card 2/2